

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-011336**Date Inspected:** 30-Dec-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower**Summary of Items Observed:**

CWI Inspectors: Mr. Zhu Zhong Hai, Mr. Li Yan Hua, Mr. Wang Chuan Qing

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Bay 13

This QA Inspector observed ZPMC welder stencil 200123 has used shielded metal arc welding procedure WPS-B-T-2214-TC-U4b-FCM-1 to make OBG weld SEG067A-223 at segment 11BW, panel point 100. This QA Inspector observed ZPMC has recorded a welding current of 158 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 54030 has used shielded metal arc welding procedure WPS-B-T-2214-TC-U4b-FCM-1 to make OBG weld SEG067-041. This QA Inspector observed ZPMC has recorded a welding current of 155 amps. Items observed on this date appeared to generally comply with applicable contract documents.

Yard, North of OBG Bay 14

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This QA Inspector observed ZPMC welder Mr. Wang Fu Peng, stencil 205718 is using shielded metal arc welding procedure specification WPS-345-SMAW-4G(4F)-FCM-Repair-1 to complete various welds in between panel point 59 floor beam and deck plate on OBG segment 7EW. This QA Inspector measured a welding current of approximately 140 amps. ZPMC QC Inspector Mr. Wang Wei Ning informed this QA Inspector that these welds had recently been ground and Mr. Wang Fu Peng is building up low areas of various welds and he is not welding on any specific weld joint number. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container. Items observed on this date appeared to generally comply with applicable contract documents.

Tower Bay 11

This QA Inspector observed ZPMC welder Ms. Xu Kauzhen, stencil 051413 is using submerged arc welding procedure specification WPS-B-T-2221-C-U2b-S-2 to make groove weld NSTL4-3B/C-3A between west tower lift 4 skin plate A and skin plate E. This QA Inspector observed ZPMC Quality Control CWI Mr. Yuan Hui Gang monitoring this welding and this QA Inspector measured a welding current of approximately 660 amps and 32.0 volts. This QA Inspector observed ZPMC had preheated the base material using electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Lu Haixian, stencil 040252 is using submerged arc welding procedure specification WPS-B-T-2221-C-U2b-S-2 to make groove weld NSTL4-3B/C-3A between west tower lift 4 skin plate A and skin plate E. This QA Inspector observed ZPMC Quality Control CWI Mr. Yuan Hui Gang monitoring this welding and this QA Inspector measured a welding current of approximately 635 amps and 31.2 volts. This QA Inspector observed ZPMC had preheated the base material using electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Xu Yan stencil 052917, had used welding procedure specification WPS-B-T-2221-C-U2b-S-2 to make groove weld NSTL4-3B/C-3A between west tower lift 4 skin plate A and skin plate E. This QA Inspector observed ZPMC Quality Control CWI Mr. Yuan Hui Gang had recorded a welding current of 685 amps and 31.2 volts. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Chen Hongxia, stencil 040460 had used welding procedure specification WPS-B-T-2221-C-U2b-S-2 to make groove weld NSTL4-3B/C-3A between west tower lift 4 skin plate A and skin plate E. This QA Inspector observed ZPMC Quality Control CWI Mr. Yuan Hui Gang had recorded a welding current of 681 amps and 31.4 volts. Items observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

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Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
